

TULE GREATER WHITE-FRONTED GOOSE (*Anser albifrons elgasi*)

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Criteria Scores

Population Trend	Range Trend	Population Size	Range Size	Endemism	Population Concentration	Threats
5	0	7.5	10	10	5	10

Special Concern Priority

Currently considered a Bird Species of Special Concern, Priority 2. Was not included on the original prioritized list (Remsen 1978) or on CDFG's (1992) unprioritized list.

Breeding Bird Survey Statistics for California

Not applicable, does not breed in California.

General Range and Abundance

As a species, the Greater White-fronted Goose has a nearly circumpolar arctic breeding distribution (Ely and Dzubin 1994). Two subspecies breed in North America, *Anser albifrons frontalis* and *A. a. elgasi*. The entire population of the latter, hereafter referred to as the Tule goose, nests in the upper Cook Inlet region of southern Alaska, and winters in central California (cit).

Seasonal Status in California

Tule geese are present in California only in a wintering role. The first birds arrive in the Klamath Basin in late August, and the population stages there until late September-early October (Ely and Dzubin 1994). After leaving the Klamath Basin, tule geese are largely restricted to the Sacramento Valley and Suisun Marsh (Wege 1984), where they remain for the winter, returning to the Klamath Basin in February and March. They are gone from the state by May.

Historical Range and Abundance in California

Tule Geese were considered a regular and formerly fairly common winter visitant, with the metropolis of the wintering grounds in vicinity of Butte Creek, Sutter County, occurring also south to vicinity of Suisun, Solano County (Grinnell and Miller 1944).

Recent Range and Abundance in California

Has not changed, as most are still found in the vicinity of Sacramento and Delevan NWRs, with occasional reports from Gray Lodge WA (B. E. Deuel, pers. obs.) or the central Butte Sink, and in the Suisun Marsh, occasionally the Napa Marshes. The population currently stands at 7,000-10,000 (DFG files). There were no accurate population estimates from early times, so in reality it is not known whether the subspecies has declined significantly. It has been assumed so, because the natural marshes this population prefers have declined. The population was estimated at 2000 birds in the late 1970s (Bauer 1979).

Ecological Requirements

During migration, utilizes open water for night roosting and grain fields for feeding. In winter, frequents marshes dominated by tules, cattails, and bulrushes, more so than any other goose. (Bellrose 1976). Feeds regularly on the tubers of these plants, but forages significantly in harvested rice and corn fields in association with other white-fronted geese (Hobbs xxxx), and on green grain in the Suisun and Napa marshes (Bauer 1979). This population appears to behave differently from Pacific white-fronts, in that they are rarely found in groups larger than 25 (Bauer 1979).

Threats

What remains of its natural habitat is found mostly on state and federal managed wetlands, but some portion occurs on private wetlands managed for waterfowl hunting. To the extent that this private habitat may be lost if hunting declines in the future, tule geese may continue to lose roosting habitat. However, this threat does not appear to be serious at this time. Some biologists have expressed the opinion that tule geese are less wary and fly lower than other white-fronts, making them more

vulnerable to hunting (Bellrose 1976). However, there are no empirical data or published studies verifying these statements.

Management and Research Recommendations

A management plan for the tule goose currently exists (Subcommittee on the Pacific Flyway population of White-fronted Geese 1991) and is being revised with an anticipated adoption date of July 2003. A complete list of management strategies and research recommendations is contained in that document, the most important of which are to 1) continue to develop more accurate methods of monitoring population levels; 2) monitor harvest levels; and 3) identify for possible protection additional wintering habitat outside the federal and state refuges.

Currently, tule geese receive protection from overharvest in California through the implementation of restrictive hunting regulations. The season on white-fronted geese closes in the heart of the winter range in mid-December, at the time when the more common Pacific white-fronts tend to move to other areas. These restrictions need to be maintained for the present.

Monitoring Needs

Because of the difficulty in finding tule geese amid the hordes of Pacific white-fronts in the same areas, efforts need to continue to monitor the population through unconventional means, such as radio-tracking. Productivity surveys and monitoring harvest at hunter check stations also needs to be continued, possibly with additional funding to permit the use of employees dedicated to the purpose.

Acknowledgments

Literature Cited

Bauer, R. D. 1979. Historical and status report of the tule white-fronted goose. Pp. 44-55 *in* Management and biology of Pacific flyway geese (R.L. Jarvis and J. C. Bartonek, eds.). OSU Bookstores, Inc. Corvallis, OR.

California Department of Fish & Game. 1992. Bird species of special concern. Unpubl. List, July 1992, Calif. Dept. Fish & Game, 1416 Ninth St., Sacramento, CA 95814

- Ely, C. R., and Dzubin, A. X. 1994. Greater White-fronted Goose (*Anser albifrons*). In The Birds of North America, No. 131 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.
- Grinnell, J., and Miller, A. H. 1944. The distribution of the birds of California. Pac. Coast Avifauna 27.
- Remsen, J. V., Jr. 1978. Bird species of special concern in California. Project PR W-54-R-9, Nongame wildlife investigations, Wildlife Management Branch Administrative Report No. 78-1.
- Sauer, J. R., Hines, J. E., Thomas, I., Fallon, J., and Gough, G. 2000. The North American Breeding Bird Survey, results and analysis 1966-1999. Version 98.1, USGS Patuxent Wildl. Res. Ctr., Laurel MD (<http://www.mbr-pwrc.usgs.gov/bbs/bbs.html>).
- Subcommittee on the Pacific Flyway Population of White-fronted Geese of the Pacific Flyway Study Committee. 1991. Pacific Flyway management plan for the tule greater white-fronted goose. Pacific Flyway Study Committee. U.S. Fish and Wildl. Ser. Report, Portland, OR.
- Wege, M. L. 1984. Distribution and abundance of tule geese in California and southern Oregon. Wildfowl 35 :14-20.